

REMARKS

The above referenced application has been reviewed in light of the Office Action mailed August 24, 2006. Applicants respectfully submit that the claims presently pending in the application, namely Claims 6, 9-11, 16 and 17, do not introduce new subject matter, are fully supported by the application and are patentable over the prior art of record. In an attempt to put the application in condition for allowance Claim 12 was canceled in a telephone interview conducted on August 15, 2006. Prompt and favorable reconsideration of the claims as presented herein is earnestly solicited.

Rejection under 35 U.S.C. § 103(a)

Claims 6, 9, 11-12 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,026,370 to Lottick ("Lottick") in view of U.S. Patent No. 5,472,443 to Cordis et al. ("Cordis") and U.S. Statutory Invention Registration No. H2037 Yates et al. ("Yates") and U.S. Patent No. 5,921,916 to Aeikens et al. ("Aeikens"). In the Office Action, the Examiner states that Lottick discloses a bipolar electrosurgical instrument essentially as claimed including curved jaw members and tapered jaw members, except for the opposable seal surfaces including a non-stick coating for reducing tissue adhesion, a stop made from an insulative material for maintaining a separation distance between the opposable seal surfaces and the specific range of closure pressure of about 7-13 kg/cm².

As to the stop, the Examiner relies on Cordis to teach an electrosurgical apparatus or bipolar forceps/grasper having a stop made from an insulating material and arranged to prevent the distal ends of the graspers or jaws from contacting each other when the forceps are closed, thus preventing a short circuit.

As to the range of closure pressure, the Examiner relies on Yates to teach an electrosurgical hemostatic device wherein the range of closure pressure for forming a required tissue seal is 30-250 psi, therefore, overlapping the claimed range.

As to the non-stick coating on the seal surface, the Examiner relies on Aeikens to teach an endoscope with tissue treatment capability via a laser and optical fiber wherein the distal piece of the device is provided with a non-stick coating consisting of TiN or titanium carbon nitride to avoid a sticking of tissue to the distal piece.

Independent Claims 6 and 16 presently recites a bipolar electrosurgical instrument including, inter alia, at least one stop disposed adjacent to at least one of opposable seal surfaces to maintain a separation distance between the opposable seal surfaces when inner and outer members are moved to a second position.

Cordis discloses a hemostatic bipolar grasper 40 (reproduced herein below as FIG. 5) including support members 41, 42 that are joined together at junction 43 by a plate of electrically insulating material 44. Support members 41, 42 include stops 45 arranged to prevent the distal ends of graspers from

contacting each other when the forceps are closed together. Cordis also discloses bipolar forceps 20 (reproduced herein below as FIG. 4A) that is substantially similar to the bipolar electrosurgical instrument disclosed in Lottick and relied on by the Examiner. Bipolar forceps 20 includes support member 21,

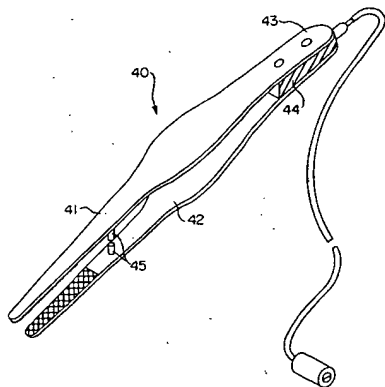


FIG. 5

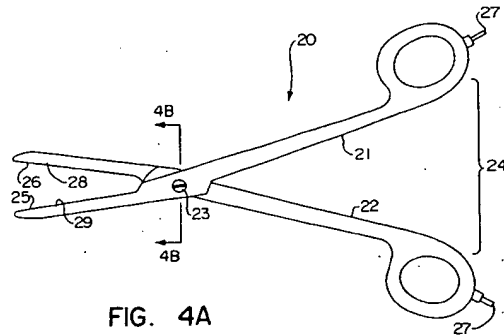


FIG. 4A

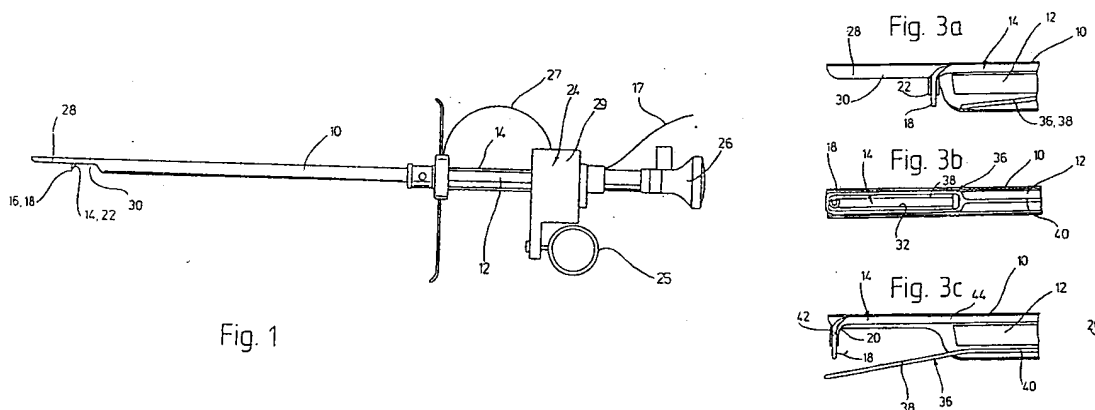
22 that are configured such that electrodes 28, 29 disposed on support members 21, 22 do not touch when the forceps is closed. (Column 10, lines 44-45). A stop(s) is not included between electrodes 28, 29, and the description does not teach, suggest or provide motivation to combine stops 45 of grasper 40 with forceps 20. Applicants respectfully submit that the Examiner has relied on impermissible hindsight to provide the motivation to combine the references and the rejection of claims 6 and 16 should be withdrawn.

Further, even assuming *arguendo* that Lottick and Cordis could be combined in a working fashion, this combination would still not teach Applicants' invention since no where is it taught, suggested or remotely contemplated to dispose the stop member adjacent the sealing surface to regulate a working

pressure between seal surfaces to within a range of about 7 kg/cm² to about 13 kg/cm² to effectively seal tissue. Both of the cited references teach 'coagulation' which is not the same as vessel sealing. Vessel sealing involves the unique combination of effectively controlling gap distances between opposing seal surfaces, pressure between opposing seal surfaces and electrical energy applied to the seal surfaces to yield a vessel seal which is essentially a homogeneous fused mass with limited demarcation between tissue structures. Coagulation, in contrast, is a process which dessicates tissue wherein the tissue cells rupture and dry.

Independent Claims 6 and 16 further recite a bipolar electrosurgical instrument including, inter alia, opposable seal surfaces including a non-stick coating for reducing tissue adhesion during the sealing process.

Aeikens discloses an endoscope (reproduced herein below as Figs. 1 and 3a-3c) including an optical viewing system and a fiber-optic illumination system.



The endoscope may include a retractable spacer or distance piece 36 which forms a wire loop 38 for delimiting an irradiation window for laser radiation exiting from an optical fiber 18. (Column 7, lines 36-38). Distance piece 36 prevents

tissue adjacent to hollow shaft 10 for coming into contact with the distal end of optical fiber 16. (Column 7, lines 30-33). Thus, distance piece 36 is a retractable guard for preventing incidental tissue contact with the light emitting end of the endoscope. Distance piece 36 is subject to neither mechanical nor electrical loads as would be experienced by the seal surfaces of Lottick during electro-cauterization. Therefore, applicants respectfully submit that a person of ordinary skill in the art would not look to a retractable guard mounted on the end of a light emitting endoscope when contemplating materials from which to construct the sealing surfaces of the electrocautery instrument of Lottick. Because there is no teaching, suggestion or motivation to use the material of the distance piece of Aeikens with the instrument of Lottick, Applicant respectfully submits that the rejections of Claims 6 and 16 should be withdrawn.

Therefore, for the reason stated above, Lottick in view of Cordis and Yates and Aeikens fails to show, teach and/or suggest a bipolar electrosurgical instrument including, inter alia, at least one stop disposed adjacent to at least one of opposable seal surfaces to maintain an essential separation distance and pressure between the opposable seal surfaces and a non-stick coating consisting of TiN or titanium carbon nitride for reducing tissue adhesion during the sealing process, as called for in Claims 6 and 16. Accordingly, Applicants submit in view of the arguments presented above, that Claims 6 and 16 are not rendered obvious by the combination of Lottick, Cordis, Yates and Aeikens.

Since Claims 9, 11 and 12 depend from Claim 6, for at least the reasons stated above, Claims 9, 11 and 12 are also not rendered obvious by Wood.

Claims 10 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Lottick/Cordis/Yates/Aeikens as applied to Claim 6 above and further in view of U.S. Patent No. 5,196,009 to Kirwan, Jr. (herein after "Kirwan"). According to the Examiner, Lottick fails to disclose the material from which the tips of the forceps are manufactured. The Examiner relies on Kirwan to teach a non-sticking electrosurgical forceps with nickel tips, specifically Nickel 200.

As noted above, the combination of Lottick, Cordis, Yates and Aeikens does not disclose or suggest all of the features of Claims 6 or 16, the base Claims from which Claims 10 and 17, respectively, depend. The Examiner relies on Kirwan to teach the use of nickel tips in non-stick electrosurgical forceps. However, Applicants submit that Kirwan does not overcome the deficiencies of Lottick/Cordis/Yates/Aeikens, i.e., it does not provide any further disclosure or suggestion that, in combination with Lottick/Cordis/Yates/Aeikens, would render obvious the instrument of Claims 6 and 16. Since, Lottick/Cordis/Yates/Aeikens either taken alone or in combination with Kirwan, do not suggest the elements of Claims 6 or 16, and since Claim 10 depends from Claim 6, and Claim 17 depends from Claim 16, for at least the reasons presented above, it is respectfully submitted that the rejection of Claims 10 and 17 should be withdrawn and that Claims 10 and 17 are also in condition for allowance.

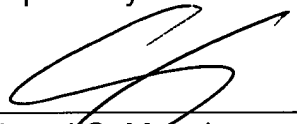
CONCLUSION

In view of the foregoing, it is therefore respectfully submitted that all of the claims remaining in the present application, namely, Claims 6, 9-12, 16 and 17 are patentably distinguishable over the references of record and action on the merits of this application is earnestly solicited.

Should the Examiner believe that a telephone interview may facilitate prosecution of this application, the Examiner is respectfully requested to telephone Applicants' undersigned representative at the number indicated below.

Please charge any deficiency as well as any other fee(s) that may become due under 37 C.F.R. § 1.16 and/or 1.17 at any time during the pendency of this application, or credit any overpayment of such fee(s), to Deposit Account No. 21-0550.

Respectfully submitted.


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